Podiatry Board
Ahpra

Sample portfolio of evidence

For podiatrists applying for endorsement for scheduled medicines through the Podiatry Board of Australia's Pathway B

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Note: This sample portfolio is an example only. The portfolio, including the example evidence matrix and log of activities, are intended to provide guidance only and are not representations of a completed portfolio, evidence matrix or log of activities.

There is no prescribed format for the portfolio but it must include:

- a completed evidence matrix
- clinical studies, and
- a reflective diary or journal, which includes a log of activities.

More information is available on the Podiatry Board of Australia's website at www.podiatryboard.gov.au/Registration-Endorsement/Endorsement-Scheduled-Medicines

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Evidence Matrix: Endorsement for scheduled medicines – Pathway B

What is this document?

- During your period of supervised practice under Pathway B, you will experience different aspects of the prescribing process according to the patients you engage with and the other activities you undertake. It is important for your learning, and a requirement of the Board, that you demonstrate competence to undertake all aspects of the prescribing process (refer *Guidelines: Endorsement for scheduled medicines* published on the Board's website)
- When you submit your application for endorsement for scheduled medicines under Pathway B, it must be accompanied by a portfolio of evidence. The evidence in your portfolio must be clearly presented and labelled and accompanied by an evidence matrix. The evidence matrix identifies which aspects of the prescribing competencies are addressed in each piece of submitted evidence. This matrix forms an important checklist for you to ensure that evidence of all areas of prescribing practice is included in your portfolio prior to submission.

What are the required national prescribing competencies?

- The Board's *Registration standard: Endorsement for scheduled medicines* (ESM registration standard) defines the required prescribing competencies as those described in the NPS MedicineWise Prescribing Competencies Framework (PCF) as it may be updated from time to time . A revised PCF was published in 2021 (PCF v2)) and is available here.
- The ASPRINH (Assessment of Prescribing in Health) Project, a national multi-professional project, condensed the performance criteria contained in the first version of the PCF to a set of essential prescribing skills, referenced to the PCF.
- This evidence matrix reflects the work of the ASPRINH project with some of the language updated to reflect PCFv2. The table lists the essential prescribing skills within each competency area
- The relevant competency areas from the PCF v2 (e.g. PCF: 1.1.) that relate to each of the ASPRINH project competency areas in the table below (e.g. CA1.1 etc.) are indicated in blue text at the end of each competency area description.

How do I complete this document?

- Each piece of evidence included in your portfolio should be clearly numbered and described
- You should have at least once piece of evidence listed against each of the 45 essential prescribing skills listed in the matrix
- Some pieces of evidence may be used to demonstrate a number of the essential prescribing skills.
- The completed evidence matrix is to be submitted with your application for endorsement under Pathway B, together with your portfolio of evidence and a signed certification of completion of supervised practice.

Evidence Matrix

Name: Anna Podiatrist **Date completed**: 20 April 2023

Competency area	Essential prescribing skills within each competency area	Evidence submitted Evidence number	Description of evidence
Competency Area 1 – Understand the patient			
CA1.1 Obtain a problem-focused, comprehensive clinical history using appropriate communication, process and deductive skills *PCF: 1.1.1, 1.2.1, 1.2.2, 1.2.3.*	1.1 Obtain a comprehensive clinical history, including social, cultural & demographic characteristics. Identify whether the patient is pregnant or breastfeeding	*1* *4* *7*	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 1- Theoretical case using emergency medicines*
	1.2 Establish a therapeutic relationship, build rapport and trust	*1*	*Clinical study 1- 08/12/2022*
	1.3 Use appropriate communication strategies	*1* *4* *8*	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)*
	1.4 Use relevant sources of patient-specific information e.g. patient and/or family, health record, other health professionals	*1* *8*	*Clinical study 1- 08/12/2022* *Reflective piece 2- Journal review (gout)*
CA1.2 Undertake a comprehensive treatment history including adherence to current and previously prescribed and self-initiated treatment/s. Consider risk factors for non-adherence. Reconcile the current treatment history with the clinical history and diagnoses *PCF: 1.2.1, 1.2.3, 1.2.4, 1.2.5*	1.5 Obtain a comprehensive treatment history, including details of pharmacological, non-pharmacological and other relevant treatment modalities, as well as an indication of their effectiveness, ineffectiveness and/or harm. Specific details of the route, dose, indication and rationale	1 4 8 9 10	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)* *NPS Module: Antimicrobial prescribing* *Reflective piece – complex case*
	1.6 Assess the patient's degree of adherence with prescribed (and self-initiated) therapy	8	*Reflective piece 2- Journal review (gout)*
	1.7 Obtain a complete allergy history	1 4 7 9 10	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 1- Theoretical case using emergency medicines* *NPS Module: Antimicrobial prescribing* *Reflective piece – complex case*

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Competency area	Essential prescribing skills within each competency area	Evidence submitted	
		Evidence number	Description of evidence
	1.8 Reconcile the treatment history using a systematic process	9 10	*NPS Module: Antimicrobial prescribing* *Reflective piece – complex case*
	1.9 Investigate the patient's goals, beliefs and attitudes in relation to their existing treatment/s and clinical history	4	*Clinical study 2- 09/01/2023*
CA1.3 Demonstrate appropriate profession-specific patient assessment processes including, as appropriate, those pertaining to physical examination and arranging or undertaking relevant investigations *PCF: 1.2.1, 1.2.6.*	1.10 Undertake podiatry and scope relevant physical examination as appropriate for the patient's needs	1 4 8	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)*
	1.11 Arrange relevant investigations to support an accurate assessment	1 10	*Clinical study 1- 08/12/2022* *Reflective piece – complex case*
	1.12 Obtain additional information from other health professionals and/or other relevant sources as appropriate and necessary	4 8 9	*Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)* *NPS Module: Antimicrobial prescribing*
CA1.4 Appropriately demonstrate the identification of gaps in personal knowledge and skills and the willingness to seek advice or refer the patient when in doubt *PCF: 2.2.9, H1.2.2.*	1.13 Recognise personal and professional limits within the scope of prescribing, including the process of assessing the patient's needs	1 4 8 10	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)* *Reflective piece – complex case*
	1.14 Seek advice relevant to patient management (including the option of referral) where skills and/or knowledge are identified as lacking	4 10	*Clinical study 2- 09/01/2023* *Reflective piece – complex case*
Competency Area 2 - Clinical decision making			
CA2.1 Review available information regarding the patient and identify the key health and medication related issues. Make or review the diagnosis *PCF: 1.2.2, 1.2.5, 1.3.1.*	2.1 Use appropriate information to make or review diagnosis (e.g. the clinical history, details of examinations and/or investigations, information provided by other health professionals)	1 4 7	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 1- Theoretical case using emergency medicines*
	2.2 Identify key clinical issues, including those potentially related to existing medicines	1 4 8 9	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)* *NPS Module: Antimicrobial prescribing*

Competency area	Essential prescribing skills within each competency area	Evidence submitted	
		Evidence number	Description of evidence
CA2.2 Consider whether existing treatment may be contributing to current health issues. Consider whether existing treatment has achieved the identified goals. Accordingly, consider the need to modify existing treatment *PCF: 3.2.6, 5.1.4.*	2.3 Identify whether existing treatment (where applicable) has achieved desired goals or contributed to current symptoms	4 10	*Clinical study 2- 09/01/2023* *Reflective piece – complex case*
	2.4 Decide whether there is a need to modify existing therapy	4 10	*Clinical study 2- 09/01/2023* *Reflective piece – complex case*
CA2.3 Determine whether current symptoms are modifiable by treatment *PCF: 2.1.1, 2.1.2.*	2.5 Decide whether pharmacological and/or non-pharmacological treatment options are applicable, within scope of practice	1 4 7 8	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 1- Theoretical case using emergency medicines* *Reflective piece 2- Journal review (gout)*
CA2.4 Determine the most appropriate treatment option (pharmacological and/or non-pharmacological) taking into consideration relevant patient and treatment information *PCF: 2.1.2, 2.2.1, 2.2.3.*	2.6 Determine the most appropriate treatment option/s taking into consideration patient specific details (including co-morbidities and current treatment)	1 4 8 9 10	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)* *NPS Module: Antimicrobial prescribing* *Reflective piece – complex case*
CA2.5 Negotiate with the patient the goals of treatment; respecting their beliefs, needs and attitude to the treatment options *PCF: 3.1.1, 3.2.1.*	2.7 Respectfully negotiate the goals of treatment with the patient	1	*Clinical study 1- 08/12/2022*
CA2.6 Proactively seek advice where required and use available resources effectively. Demonstrate an	2.8 Demonstrate an awareness of personal and professional limits relevant to the decision to treat and the choice of treatment. Seek advice where required	4 9 10	*Clinical study 2- 09/01/2023* *NPS Module: Antimicrobial prescribing* *Reflective piece – complex case*

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Competency area	Essential prescribing skills within each competency area	Evidence submitted	
		Evidence number	Description of evidence
understanding of personal and professional limitations and refer the patient to another health professional where appropriate *PCF: 2.2.9, 3.2.2, H1.2.2.*	2.9 Use appropriate resources to guide decision making e.g. protocols, guidelines, the advice of colleagues	1 4 9	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *NPS Module: Antimicrobial prescribing*
	2.10 Refer the patient to another health professional to determine the most appropriate treatment choice as appropriate	8 10	*Reflective piece 2- Journal review (gout)* *Reflective piece – complex case*
CA2.7 In collaboration with the patient, select the most appropriate treatment according to both treatment and patient factors *PCF: 2.2.1, 2.2.3, 2.2.4, 2.2.6, 3.2.1, 3.2.3, 3.2.4.*	2.11 Decide on treatment in collaboration with patient, taking patient relevant factors into consideration e.g. cost and availability of medicine, intended duration of therapy, patient preference and beliefs and the properties of the pharmacological/non-pharmacological therapy such as route, dose, frequency	1 4 8	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)*
	2.12 Provide an evidence-based rationale for the prescribed therapy. Where relevant, provide details of the properties of prescribed medicine/s, potential adverse effects, interactions and contraindications and details of non-pharmacological therapies recommended to the patient. Consider relevant ethical and legal considerations.	1 4 9	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *NPS Module: Antimicrobial prescribing*
CA2.8 Modify the treatment according to patient specific factors *PCF: 2.2.3.*	2.13 Consider the need to adjust the dose according to patient age, weight, renal/hepatic function, agreed goals, possible interaction with existing therapy/food	1 4 9	*Clinical study1- 08/12/2022* *Clinical study 2- 09/01/2023* *NPS Module: Antimicrobial prescribing*
CA2.9 Determine when the various components of treatment should be reviewed and agree to a plan for this with the patient *PCF: 3.3.1.*	2.14 Discuss with the patient the need to monitor therapy and agree on a plan for this to occur	1 4 8 10	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece 2- Journal review (gout)* *Reflective piece – complex case*

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Competency area	Essential prescribing skills within each competency area	Evidence submitted Evidence number	Description of evidence
Competency Area 3 – Communicate the treatment plan			
CA3.1 Discuss with the patient, carer and/or family details of the treatment plan. Provide written and verbal information as appropriate or required by law *PCF: 2.2.6, 2.2.7.*	3.1 Provide relevant information for the patient, carer and/or family, including: the name of the treatment/s, dose, frequency, how to administer, intended duration	1 4	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023*
	3.2 Provide advice regarding when to seek advice and how to know if treatment has been effective, ineffective or harmful	1 4	*Clinical study 1-08/12/2022* *Clinical study 2- 09/01/2023*
	3.3 Provide written and verbal information as appropriate and/or required	1 4 10	*Clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Reflective piece – complex case*
CA3.2 Ensure the patient, carer and/or family understand the details of the treatment plan *PCF: 3.2.7.*	3.4 Use effective communication skills (e.g. active listening, awareness of cultural factors, ability to adapt communication for patients with disability such as hearing loss) to convey information and to ensure the patient has understood the information provided	1 8	*Clinical study 1- 08/12/2022* *Reflective piece 2- Journal review (gout)*
CA3.3 Document details of the agreed treatment plan *PCF: H1.1.2.*	3.5 Document the details of the agreed treatment plan (including the plan for review of therapy) using appropriate, secure methods	1	*Clinical study 1- 08/12/2022*
CA3.4 Communicate details of the treatment plan to other health professionals including modifications to existing therapy where applicable *PCF: 4.2.1, H2.5.4.*	3.6 Ensure all relevant health professionals are provided with details of the agreed treatment plan (including the plan for review of therapy). Discuss any specific requirements applicable to shared care protocols.	1 3 4 6 8 10	*Clinical study 1- 08/12/2022* Sample letter communicating with another health practitioner- 08/12/2022 *Clinical study 2- 09/01/2023* Sample letter communicating with another health practitioner- *09/01/2023* *Reflective piece 2- Journal review (gout)* *Reflective piece – complex case*
	3.7 Ensure modifications made to existing therapy are communicated to all relevant health professionals	10	*Reflective piece – complex case*

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Competency area	Essential prescribing skills within each competency area	Evidence submitted	
		Evidence number	Description of evidence
	3.8 Consider the need for informed consent when providing information to other health professionals. Record details	4	*Clinical study 2- 09/01/2023*
CA3.5 Ensure medicines are prescribed accurately and according to legal and regulatory requirements *PCF: 4.1.1.*	3.9 Prescribe medicines according to recognised safety recommendations (appropriate abbreviations and terminology, use of standardised forms), legal and regulatory requirements	1 2 4 5 7	*Clinical study 1- 08/12/2022* *Sample prescription for clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Sample prescription for clinical study 2- 09/01/2023* *Reflective piece 1- Theoretical case using emergency medicines*
	3.10 Prescribe medicines accurately	1 2 4 5 7	*Clinical study 1- 08/12/2022* *Sample prescription for clinical study 1- 08/12/2022* *Clinical study 2- 09/01/2023* *Sample prescription for clinical study 2- 09/01/2023* *Reflective piece 1- Theoretical case using emergency medicines*
Competency Area 4 – Monitor and review prescribed therapy			
CA4.1 Use appropriate indicators to review prescribed treatment including patient information, clinical indicators and, where appropriate, the results of Therapeutic Drug Monitoring (TDM) *PCF: 5.1.1, 5.1.2, 5.1.3.*	4.1 Use relevant sources of information to determine whether prescribed/recommended treatment has been effective, ineffective or harmful	9 10	*NPS Module: Antimicrobial prescribing* *Reflective piece – complex case*
	4.2 Seek advice if the outcome of instituted therapy is unclear, difficult to interpret or not expected	10	*Reflective piece – complex case*
CA4.2 Identify treatment options based on interpretation of information gathered regarding implemented therapy *PCF: 2.2.1, 2.2.3, 5.1.4.*	4.3 Determine treatment options based on information gathered regarding the outcomes of current therapy	10	*Reflective piece – complex case*
	4.4 Where required, work with other health professionals to interpret results of monitoring and to decide on possible treatment options based on monitoring	8 10	*Reflective piece 2- Journal review (gout)* *Reflective piece – complex case*

Competency area	Essential prescribing skills within each competency area	Evidence submitted	
		Evidence number	Description of evidence
CA4.3 Decide, in collaboration with the patient and/or other health professionals, whether therapy should be ceased, modified, continued or initiated depending on the results of monitoring and review *PCF: 3.2.2, 3.2.6, 5.1.4, 5.2.3*	4.5 Decide (according to relevant practice scope) whether treatment should be ceased, modified, continued or initiated according to the results of monitoring	9	*NPS Module: Antimicrobial prescribing*
CA4.4 Communicate the findings of the review and recommendations with the patient, carer and/or family and other health professionals as appropriate, seeking advice and referring the patient when indicated *PCF: 5.2.1, 2.2.9, H1.2.2, H2.5.4.*	4.6 Communicate the outcome of the review of therapy to relevant other health professionals	3	Sample letter communicating with another health practitioner- 08/12/2022
	4.7 Use appropriate communication methods to provide review information to other relevant health professionals, e.g. electronic, written and/or verbal methods to ensure timely provision of information	7 10	*Reflective piece 1- Theoretical case using emergency medicines* *Reflective piece – complex case*

Evidence 1:

Clinical study 1

CSTE-70

Podiatry Board Ahpra

Clinical study template

Profession: **Podiatry**

Complete this clinical study with reference to the Board's *Guidelines: Endorsement for scheduled medicines* (ESM guidelines). In particular see *Appendix 2 – Evidence for inclusion in your portfolio* – section 1.1 *Clinical studies.*

This de-identified clinical study must relate to one of the observational clinical sessions you attended in which you actively observed the clinical decision making process.

When completing this study, it's important that you consider the following:

- What you would prescribe for this particular patient
- Why it would be safe and effective for the patient, given the relevant information obtained during the consultation
- Does the prescription give clear directions for the dispensing pharmacist, patient and other health practitioners? Is it accurate and meet legal requirements?
- Have you removed any individual's name and any information from which an individual's identity could be revealed?

The clinical study must be comprehensive and:

- be prepared as though you were the prescribing practitioner for the patient at that observational clinical session. If the observed scenario includes elements that are outside the scope of practice of a podiatrist with endorsement for scheduled medicines, you should include a discussion of the appropriate management that could be undertaken by an endorsed podiatrist.
- demonstrate that:
    - you have critically reflected on the observational clinical session that this clinical study relates to and have applied your knowledge of prescribing to that individual patient by considering all relevant patient and medicine specific factors and formulating an independent prescribing decision supported by evidence-based guidelines or references. there are sound reasons for prescribing a scheduled medicine and, in particular, the scheduled medicine(s) prescribed
    - you have considered options other than pharmacological intervention
    - the choice of treatment is in line with evidence based guidelines such as the Australian clinical guidelines, (Therapeutic Guidelines). Clinical justification should be provided where treatment deviates from guideline-based therapy.
    - where antibiotics are prescribed, consideration should be given to the principles of antimicrobial stewardship. Clinical justification should be provided where treatment deviates from these principles.
    - the choice of scheduled medicine has been made in consideration of various schedules which contain the same medicines in differing presentations and
    - the cost considerations for the patient in respect to pharmacy dispensing fees.
    - you have identified which prescribing competencies (as defined in the NPS MedicineWise Competencies Required to Prescribe Medicines) are addressed in this particular patient encounter
- should include discussion of all scheduled medications prescribed in the observed clinical session.
- be accompanied by a sample completed prescription that you have prepared for that individual patient for all medicines you have prescribed, according to State-based regulatory requirements.

It is important that you carefully read the information in the ESM guidelines (Appendix 2 – section 1.1: Clinical studies) about what should be included in the clinical study as well as the specific requirements for some clinical studies.

For example, some of your clinical studies must also include a sample of communication with members of the patient's healthcare team and in some the actual outcome of the medicine(s) prescribed must be reported.

Prescriptions

Generating a prescription requires a clear understanding of both legal and professional obligations. An incorrect prescription may carry the risk of serious patient harm.

Information about prescriptions is included in the Board's Clinical practice guidelines: Endorsement for scheduled medicines, which are at Appendix 3 to the ESM guidelines

Clinical study details

Clinical study number: 1	Date of observation: 8/12/2022
Your name: Anna Podiatrist	
Attending prescribing clinician's name and occupation: Dr Vxxxxxx GP	

Clinical setting description

☐Inpatient – ***Provide hospital/ward/encounter type below***

☒Outpatient – ***Provide hospital/name of clinic below***

High risk foot clinic (interdisciplinary)

☐Community health – ***Provide name below***

☐Primary health or private practice

☐Other – ***Please describe below***

Presentation type: Podiatry related

Case category *(check all boxes that apply)*

☒High risk

☐Complex

☐Describes clinical outcome of medicine

☒Describes polypharmacy

☒Includes sample of communication with other member of healthcare team

Please note: All text boxes below will expand to fit content.
Images can also be inserted into text fields using the Insert > Pictures menu command.
Please ensure that text has been added first, before inserting images.

Patient details

Sam is a 52-year-old male.

Measurements:
Weight: 92kg. Height: 176cm BMI: 29.7

Social history:
Lives alone, unemployed, sedentary lifestyle
Smoking status: current smoker - 20 cigarettes/day past 25 years
Alcohol or illicit drug use: Nil disclosed

Medical conditions:
Type 2 diabetes mellitus diagnosed 8 years ago
Obstructive Sleep Apnoea
Hypertension
Hypercholesterolaemia

Current medications:

Gliclazide tablet MR; 60mg oral daily (Diabetes treatment)
Empagliflozin/Linagliptin tablet; 25mg/5mg oral daily (Diabetes treatment)
Atorvastatin tablet; 10mg oral morning (hypercholesterolaemia treatment)
Paracetamol tablet; 500mg; 1g oral 6 hourly PRN (analgesic, infrequent use for occasional headaches)
Aspirin tablet; 100mg oral daily (CV risk reduction)
Metformin tablet (extended release);1g; 2g oral morning (Diabetes treatment)
Perindopril arginine tablet; 10mg;10mg oral morning (anti-hypertensive)

Relevant ceased medications:
Flucloxacillin capsule; 500mg; 500mg four times a day for 7 days. (antibiotic, most recent course completed approximately three weeks ago, patient reports they adhered to dosing instructions and duration of treatment, treatment was successful, and no adverse effects)

Non-prescription medicines:
none

Allergies:
Captopril – dry cough

Presenting complaint: six-month history of recurrent plantar ulceration and infection overlying left 1st metatarsophalangeal joint

(1.1, 1.2, 1.4, 1.5, 1.6, 1.7, 1.8)

Subjective

Patient reports feeling generally well for the past four days but has noticed his fasting blood glucose levels are elevated. He has noticed malodourous discharge from his wound in the past 48 hours.
Patient reports he has seen his GP for three courses of antibiotics over the past 6 months, most recent course approximately three weeks ago. Patient was unable to provide details of the antibiotics (however this information was obtained by calling the GP and is noted in the medication history). No recent cultures taken. No previous podiatry input and patient has been self-managing with non-adherent dressings.
Patient's stated goal is to heal ulcer.
(1.2, 2.1, 1.9)

Objective

Wound assessment:
Isolated oedema, erythema, and purulent exudate from pressure ulcer under the left foot 1st metatarsophalangeal joint.
Wound size Length= 18mm, Width=12mm, Depth=3mm (does not probe to bone).

Systemic signs of infection assessment:
Pulse: 60bpm
Temp: 37C
BP 130/70

Neurovascular assessment:
Palpable pedal pulses (dorsalis pedis and posterior tibial) and biphasic on Doppler ultrasound bilaterally.
Absolute toe pressure= 88mHg Left and 110mmHg Right
10g monofilament and tuning fork testing indicates completely insensate to the ankle.

Biomechanical observations relevant to wound appearance:
High arched feet with excessive weight-bearing pressure on 1st metatarsophalangeal joint.

Footwear assessment:
Walking in Crocs™ today, reports rarely wearing shoes at home most of the time.
No offloading measures in place

Factors that affect wound healing:
Diabetes control - HbA1c 89mmol/mol or 10.3% (one month ago), fasting BGL 12mmol/l (today)
Nutrition status - reports a balanced diet

Relevant laboratory data:
eGFR 92mL/min/1.73m2 (one month ago)

(1.10, 1.11, 1.12, 2.1, 2.2)

Assessment

Diagnosis:
Left foot plantar ulcer to 1st metatarsophalangeal joint due to structural changes leading to increased pressure at ulcer site.

Differential Diagnosis:
Nil evidence of gout, malignancy, traumatic injury as supported by clinical history and examination findings.

(2.1, 2.2)

Plan

Discussed and agreed with patient. Consent obtained.

Short term:

Blood tests (C-Reactive Protein (CRP), Full blood count (FBC), Liver function tests (LFTs), vitamin D & C, estimated glomerular filtration rate (eGFR), uric acid, as relevant).

Local sharp wound debridement.

Oral antibiotic therapy prescribed (see below).

Implement wound care and dressing plan (request shared care with GP).

Implement evidence-based offloading modality/strategy, based on clinical reasoning, patient ability to don and doff safely.

Relevant imaging - baseline X-ray.

Swab (microscopy, culture, and sensitivity).

Education (verbal and written).

Correspondence/ letter to GP.

Long term:

Review swab results and adjust empirical therapy if required.

Community nursing wound review daily.

Follow up consultation with podiatry in 5 days and thereafter fortnightly, with a view to discharge at resolution.

Review MCS results in case further antibiotic treatment is required (noting that prolonged courses of antibiotics require medical practitioner advice).

Consider bone scan/MRI or referral for further investigation if X-ray is inconclusive and clinical concerns remain.

Follow up consultations with relevant health professionals including diabetes educator, endocrinologist, and dietitian to improve wound healing factors and general health.

Monitor and review offloading strategy for quality, effectiveness, patient adherence and safety.

(2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 3.5, 3.6, 3.7)

Medications prescribed (including scheduling)

Amoxicillin/Clavulanic acid tablet 875/125mg One tablet orally every 12 hours for 5 days

Schedule 4: Prescription Only

(3.10)

Scheduled medicines assessment and evaluation

Amoxicillin/clavulanic acid

Indication/purpose for medicine prescribed:

Amoxicillin/clavulanic acid is a broad-spectrum antibacterial agent used for the treatment of skin and skin structure infections caused by susceptible organisms (AMH, eMIMS). According to the Therapeutic Guidelines, the ulcer is infected as it has at least 2 of the features of infection (local swelling or induration, erythema extending more than 0.5 cm in any direction from the wound, local tenderness or pain, local warmth, purulent discharge). It is classified as a mild infection as it involves only the skin and subcutaneous tissue, erythema extends no more than 2 cm from the wound margin and there are no systemic features of infection.

Rationale/evidence-based practice:

This patient presents with a mild diabetic foot infection with no current evidence of osteomyelitis or septic arthritis, and he does not report an immediate hypersensitivity to penicillin. This patient would be considered to be at low risk of methicillin-resistant Staphylococcus aureus (MRSA) based on the Therapeutic Guidelines risk factors (eTG, 2021).

As this patient has recently received antibiotic therapy and the wound site has been present for 6 months this also needs to be considered when determining empirical therapy as the wound is more likely to be polymicrobially infected. Therefore, the following empirical antibiotic therapy would be recommended until cultures can be obtained: Amoxycillin and Clavulanic acid 875 + 125mg orally 12 hourly for 5 days. Class-Penicillin (eTG, 2021)

Pharmacodynamics:

Bactericidal - "interfere with bacterial cell wall peptidoglycan synthesis by binding to penicillin-binding proteins, eventually leading to cell lysis and death" , "Clavulanic acid inhibits beta-lactamase, which extends spectrum of activity of amoxicillin with clavulanic acid to cover some beta-lactamase-producing organisms " (AMH)

Pharmacokinetics (MIMS):

Absorption

- stable in gastric acid, rapidly absorbed before or with a meal. If given after a meal absorption of clavulanic acid is significantly affected. (MIMS)
- *Relevance to case – Prescription and patient education to have before/with food.*

Excretion

- renal excretion for amoxicillin, both renal and non-renal mechanisms for clavulanic acid (MIMS)
- *Relevance to case – renal precautions require assessment.*

Adverse effects (AMH):

- Common - " transient increases in liver enzymes and bilirubin, amoxicillin rash , diarrhoea, nausea, superinfection (including candidiasis) especially during prolonged treatment with broad-spectrum penicillins, allergy"
- Infrequent - "vomiting, *Clostridioides difficile*-associated disease"
- Rare: "black tongue, electrolyte disturbances (hypernatraemia or hypokalaemia due to sodium content of high parenteral doses), neurotoxicity (usually with high doses, e.g. drowsiness, hallucinations, coma, seizures), bleeding, blood dyscrasias (e.g. neutropenia, which is related to dose and duration of treatment, thrombocytopenia)"
- Amoxicillin with clavulanic acid can cause cholestatic hepatitis; people >55 years have an increased risk. Pre-existing hepatic impairment is not a risk factor.
- *Relevance to case – monitoring required for FBC, renal, LFT in prolonged treatment > 10 days, advise patient to monitor – diarrhoea, rash, signs of cholestatic hepatitis (fatigue, nausea, pruritis, dark urine).*

Possible drug interactions:

The patient's current medications were reviewed using the eMIMS interaction checker and no interactions with the prescribed medication were found.

Contraindications and precautions (AMH, MIMS), eTG:

- Penicillin allergy; contraindicated generally. Nil history of allergy for this patient.
- Renal impairment; caution for parenteral doses or prolonged use, caution and dosage reduction when CrCl is less than 30mL/min (from 875mg/125mg twice daily to 500mg/125mg twice daily) (MIMS). The patient does not have a documented history of renal impairment however they do have risk factors (diabetic, diagnosed hypertension, obesity, current smoker). The patient's GP was contacted to discuss risk and they confirmed the patient's eGFR one month ago was 92mL/min/1.73m2. Monitoring of FBC and electrolytes required if antibiotic course continues.
- Hepatic function; Contraindicated with history of cholestatic jaundice or hepatic dysfunction associated with amoxicillin with clavulanic acid. *Relevance to case- nil history noted, refer for monitoring if prolonged therapy required.*
- Other precautions, heart failure, HIV, leukemia, glandular fever, pregnancy. Nil relevance.

Overall appropriateness for the patient:

After consideration of evidence based guidelines for prescribing and patient factors, this treatment is appropriate. Topical antimicrobial therapy is not appropriate and IV therapy is not warranted at this stage according to diagnosis and guideline recommendations.

Consideration of ethical and legal obligations:

A podiatrist providing an empirical prescription for amoxicillin/clavulanic acid for the treatment of a mild diabetic foot infection following a thorough assessment of the individual patient would be considered within scope of practice.

Ethical obligations to antimicrobial stewardship have been considered as the infection has been diagnosed and treatment has been chosen supported by evidence-based guidelines.

Cost implications:

A prescription written by an Endorsed podiatrist is not eligible for PBS subsidy. The patient may have a concession card and therefore may be eligible for subsidised medications. The approximate price for a general patient would be $14 and $6.20 for a patient with a concession card. However, in this scenario the hospital subsidises the cost of the medicine, so the patient was not financially disadvantaged.

Outline of any collaboration, communication, shared care protocols:

A letter was sent to the GP to inform of new medicine implemented and confirm responsibilities of current care.

Review parameters, indicators of effectiveness, ineffectiveness, and harm:

Effectiveness would be indicated by reduced wound size and depth, reduced redness, pain, warmth and swelling.

Ineffectiveness would be indicated by increased wound size and depth, increased redness, pain, warmth and swelling, and signs of systemic illness.

Harm would be indicated by signs of allergy or adverse effects.

(1.13, 1.14, 2.6, 2.8, 2.9, 2.11, 2.12, 2.13)

Education

Treatment plan:

Discussed the importance of managing the infection to prevent serious complications and that treatment involves several measures including:

- medication is an antibiotic to treat a infected foot ulcer
- Take medication immediately before or with first mouthful of food to optimise absorption and minimise potential gastrointestinal intolerance.
- Take one tablet twice a day, evenly spaced, i.e., 12 hrs apart, for 5 days. At the review, there will be a decision if further antibiotic treatment is required.
- The medication course should be completed unless advised otherwise by podiatrist/GP.
- Common side effects may be experienced such as nausea, diarrhoea. If significant or prolonged diarrhoea and nausea is experienced, seek medical attention.

- Some people may experience allergy to medications. If rash, coughing, wheezing, or difficulty breathing is experienced, seek urgent medical attention.
- A rare adverse reaction may occur that results in itchy skin, tiredness, yellow skin, dark urine. If any of these symptoms are experienced, seek urgent medical attention.
- Store below 25 degrees, keep out of reach of children

Patient also advised and supported with standard wound care including:

- Wound pressure redistribution (important to assist with wound healing),
- Wound dressing type and changes undertaken in a shared care arrangement with the GP (Practice Nurse) as agreed in a telephone discussion.
- Advised patient to ensure follow up with (or seek new referrals to) diabetes nurse educator, dietitian, and endocrinologist to optimise diabetes control.
- Advice given regarding smoking cessation and the support available.
- Follow up appointment with podiatrist in 5 days and thereafter fortnightly until condition resolved.
- Correspondence has been provided to GP with management plan and review dates
- Advised to present to emergency department or GP if increased redness and tenderness or signs of spreading infection or evidence of systemic infection which may include fevers, chills, vomiting, nausea, diarrhoea.

Patient understanding:

The patient was provided with written information regarding referrals, review appointments, dressing plan, offloading plan, medication information and clinic telephone numbers. The patient was given the opportunity to ask questions and to confirm understanding of treatment plan and medication use.

(1.3, 2.14, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.9)

Review/monitoring/clinical outcome of medicine (where relevant)

Reflection of learnings relating to this case

Diabetes related foot infections should always be considered serious as they are often worse than they appear. Amoxicillin with clavulanic acid is available orally for use by Endorsed Podiatrists and Podiatric Surgeons.

Endorsed podiatrists cannot access IM and IV anti-infectives and endorsed podiatric surgeons are only able to access IV in association with a hospital admission. If there is no improvement or worsening of clinical signs during the treatment such as systemic inflammatory response syndrome (SIRS), the choice and dose of the agent requires review. Deterioration in the condition would usually require hospitalisation and the patient should be referred to a medical practitioner for further investigation.

Patients with Diabetes foot ulcers should be managed holistically, with consideration to both pharmacological and non-pharmacological measures.

Essential prescribing skills/code relevant to this case

Information about the essential prescribing skills and how they map to the NPS prescribing competencies are published on the Board's website. These may also be incorporated into each of the above sections.

Competencies from Podiatry Board of Australia Evidence Matrix: Endorsement for scheduled medicines – Pathway B referenced throughout clinical study

Attachments (list your attachments below)

Prescription, shared care correspondence with GP

Signatures

Mentor name: John Smith	Date: 4/01/2023

Signature of mentor:

John Smith

Your name: Anna Podiatrist	Date: 4/01/2023

Your signature:

Anna Podiatrist

Form submission

The fastest way to submit this form and any supporting documents is online at: www.ahpra.gov.au/registration/online-upload.

If you wish to submit it via mail, please post this form and required attachments to:

Ahpra
GPO Box 9958
IN YOUR CAPITAL CITY (refer below)

You may contact Ahpra on 1300 419 495 or you can lodge an enquiry at www.ahpra.gov.au

Adelaide SA 5001	Brisbane QLD 4001	Canberra ACT 2601	Darwin NT 0801
Hobart TAS 7001	Melbourne VIC 3001	Perth WA 6001	Sydney NSW 2001

Evidence 2:

Sample prescription relating to clinical study 1

Evidence number: 2

PRESCRIPTION

Anna Podiatrist
Bachelor of Podiatry
Podiatrist endorsed for scheduled medicines
Podiatry Board of Australia **- Registration No: POD12345678**

Practice Address:
Northside Podiatry Clinic
1 Northside Avenue, Wellville
Phone: (01) 1234 1234

Patient details:

Full name: Mr Sxx Bxxxxx
DOB: 06/05/1970
Address: 10 North Road Wellville
Date: 8/12/2022

℞

Amoxicillin and Clavulanic Acid 875mg / 125mg tabs
Take one tablet every 12 hours for 5 days
Take immediately before or with first mouthful of food
Supply 10 tablets

Anna Podiatrist
Prescriber's signature

No subsidy available under the PBS for medicines prescribed by a podiatrist or podiatric surgeon with endorsement for scheduled medicines

Patient Receipt **THIS AREA DOES NOT NEED TO BE COMPLETED**

Patient or agents signature_____

Agent address _____

Evidence 3:

Sample of communication with member of patient's healthcare team relating to clinical study 1

Anna Podiatrist (ESM)
Northside Community Podiatry Clinic
1 Northside Avenue, Wellville
(01)1234 1234
E: anna_podiatrist@northside.com.au

Dr John Smith
99 South St
Wellville
(Today's date)

Dear Dr Smith

Re: Sam Brown
DOB: 6/5/1970 10 North Rd Wellville
Ph: 0199 111 000

Medical History:

- Type 2 diabetes mellitus diagnosed 8 years ago
- Obstructive Sleep Apnoea
- Hypertension
- Hypercholesterolaemia

Current medications:

- Gliclazide tablet MR; 60mg oral daily
- Empagliflozin/Linagliptin tablet; 25mg/5mg oral daily
- Atorvastatin tablet; 10mg oral morning
- Paracetamol tablet; 500mg; 1g oral 6 hourly PRN
- Aspirin tablet; 100mg oral daily
- Metformin tablet (extended release);1g; 2g oral morning
- Perindopril arginine tablet; 10mg;10mg oral morning

Mr Brown attended North Hospital today for podiatric review of his chronic left 1st metatarsophalangeal joint plantar ulcer. After examination, the diagnosis was a mild diabetes related foot infection at a chronic neuropathic pressure ulcer site.

The ulcer has been present for six months and has previously been treated with antibiotics. Most recently (3 weeks ago), flucloxacillin capsule; 500mg four times a day, for 7 days (the patient reports they adhered to dosing instructions and duration of treatment, treatment was successful, and no adverse effects noted).

Treatment plan initiated today:

- **Amoxicillin/clavulanic acid 875mg/125mg 1 bd for 5 days**
- **Local sharp wound debridement**
- **MC&S swab**
- **Offloading plan**
- **Referral to diabetes educator, dietician and endocrinologist**
- **Information on smoking cessation**

In the interests of shared care, thank you for agreeing to assist with wound dressings at your clinic (as per earlier telephone conversation) – initially 3 times a week with negotiation, as the patient is unable to access community nursing services (unemployed and aged 52)

The patient will be reviewed at the hospital in 5 days and thereafter fortnightly.

Please do not hesitate to contact this clinic should you wish to discuss. Please advise if there is any update to this patient's medical history.

Regards,

Anna Podiatrist

Anna Podiatrist

Evidence 4:

Clinical study 2

CSTE-70

Podiatry Board Ahpra

Clinical study template

Profession: **Podiatry**

Complete this clinical study with reference to the Board's *Guidelines: Endorsement for scheduled medicines* (ESM guidelines). In particular see *Appendix 2 – Evidence for inclusion in your portfolio* – section 1.1 *Clinical studies*.

This de-identified clinical study must relate to one of the observational clinical sessions you attended in which you actively observed the clinical decision making process.

When completing this study, it's important that you consider the following:

- What you would prescribe for this particular patient
- Why it would be safe and effective for the patient, given the relevant information obtained during the consultation
- Does the prescription give clear directions for the dispensing pharmacist, patient and other health practitioners? Is it accurate and meet legal requirements?
- Have you removed any individual's name and any information from which an individual's identity could be revealed?

The clinical study must be comprehensive and:

- be prepared as though you were the prescribing practitioner for the patient at that observational clinical session. If the observed scenario includes elements that are outside the scope of practice of a podiatrist with endorsement for scheduled medicines, you should include a discussion of the appropriate management that could be undertaken by an endorsed podiatrist.
- demonstrate that:
  - you have critically reflected on the observational clinical session that this clinical study relates to and have applied your knowledge of prescribing to that individual patient by considering all relevant patient and medicine specific factors and formulating an independent prescribing decision supported by evidence based guidelines or references.
  - there are sound reasons for prescribing a scheduled medicine and, in particular, the scheduled medicine(s) prescribed
  - you have considered options other than pharmacological intervention
  - the choice of treatment is in line with evidence based guidelines such as the Australian clinical guidelines, (Therapeutic Guidelines). Clinical justification
  - should be provided where treatment deviates from guideline-based therapy.
  - Where antibiotics are prescribed, consideration should be given to the principles of antimicrobial stewardship. Clinical justification should be provided
  - where treatment deviates from these principles.
  - the choice of scheduled medicine has been made in consideration of various schedules which contain the same medicines in differing presentations and
  - the cost considerations in respect to pharmacy dispensing fees
  - you have identified which prescribing competencies (as defined in the NPS MedicineWise Competencies Required to Prescribe Medicines) are
  - addressed in this particular patient encounter
- be accompanied by a sample completed prescription that you have prepared for that individual patient for all medicines you have prescribed.

It is important that you carefully read the information in the ESM guidelines (Appendix 2 – section 1.1: Clinical studies) about what should be included in the clinical study as well as the specific requirements for some clinical studies.

For example, some of your clinical studies must also include a sample of communication with members of the patient's healthcare team and in some the actual outcome of the medicine(s) prescribed must be reported.

Prescriptions

Generating a prescription requires a clear understanding of both legal and professional obligations. An incorrect prescription may carry the risk of serious patient harm.

Information about prescriptions is included in the Board's Clinical practice guidelines: Endorsement for scheduled medicines, which are at Appendix 3 to the ESM guidelines

Clinical study details

Clinical study number: 02	Date of observation: 9/01/2023
Your name: Anna Podiatrist	
Attending prescribing clinician's name and occupation: Dr Mxxx Dxxxxx, GP	

Clinical setting description

☐Inpatient – ***Provide hospital/ward/encounter type below***

☐Outpatient – ***Provide hospital/name of clinic below***

☐Community health – ***Provide name below***

☒Primary health or private practice

Primary Care/GP Clinic

☐Other – ***Please describe below***

Presentation type: Podiatry related

Case category *(check all boxes that apply)*

☐High risk

☐Complex

☐Describes clinical outcome of medicine

☐Describes polypharmacy

☒Includes sample of communication with other member of healthcare team

Please note: All text boxes below will expand to fit content.
Images can also be inserted into text fields using the Insert > Pictures menu command.
Please ensure that text has been added first, before inserting images.

Patient details

Alice is a 17-year-old female

Measurements:

Approximate height: 166cm, weight 61kg BMI: 22.1 (healthy weight)

Social history

High school student, lives with parents and one sibling

Swims 3x/ week
Not pregnant or lactating
Smoking status: never smoked
Alcohol or illicit drug use: Nil disclosed

Medical/ surgical history:
Asthma
Ureteral reimplantation
Persistent suspected onychomycosis
Current medications:
Salbutamol inhaler 100 micrograms 1-2 actuation per inhalation prn (infrequent use)
Fluticasone propionate 50 micrograms 1-2 puffs BD.

Amorolfine liquid, 5% for 10 months, Alice states she consistently used this medication according to the instructions

Non-prescription medicines:
None

Allergies:
no known allergies or adverse drug reactions

Presenting complaint:
14/12 history of suspected onychomycosis (tinea unguium) bilateral 1st and 2nd toenails.

(1.1, 1.2, 1.4, 1.5, 1.6, 1.7, 1.8)

Subjective

Mother present for the consultation.
Patient reports thickened, discoloured 1st toenails, first noticed approximately 14 months ago and soon spread to 2nd toenails.
No pain but embarrassed by the appearance. Previously swimming 6 times per week.
Occasionally developing tinea between her toes, treated successfully with terbinafine cream.
Previous treatment of nail infection consisted of topical application of Amorolfine for 10 months. Infection not resolving and appears to be progressing.
Alice's goal is to improve appearance of nails.
(1.2, 2.1, 1.9)

Objective

Clinical assessment:
Distal onycholysis in both 2nd toenails, 70% nail involvement. Proximal and lateral suspected onychomycosis present left 1st toenail and proximal only right 1st toenail. All sites have dark yellow opaque streaks with 85% nail involvement left 1st and 65% right 1st. Subungual hyperkeratosis left 1st nail only. No clinical evidence of infection present in all other toenails and fingernails. No evidence of surrounding tinea pedis and no clinical signs or symptoms of paronychia or cellulitis.

Microscopy and Culture results:
Nail scrapings at previous consultation confirmed dermatophyte fungi: Trichophyton Rubrum.

Relevant laboratory data:

Baseline pathology performed by GP two weeks ago including full blood count and Liver function tests (LFTs), all within typical limits.
(1.10, 1.11, 1.12, 2.1, 2.2)

Assessment

Diagnosis
T. rubrum dermatophyte infection with extensive involvement of both 1st and 2nd toenail confirmed with microscopy and culture studies. Non-responsive to topical anti-fungal therapy.
Differential Diagnosis

- Onychomycosis associated with yeasts (Candida albicans) or moulds (Scopulariopsis brevicaulis and Fusarium species)
- Psoriasis
- Eczema
- Dermatitis
- Lichen planus
- Viral warts
- Onycholysis
- Onychogryphosis
- Trauma

Many nail disorders can mimic onychomycosis and microscopy and culture is important in the diagnosis. Use of topical preparation could have impaired microscopy and culture results and had the potential to produce a false negative result. (DermNZ, 2023)

Patient had consistently adhered to topical antifungal treatment application for considerable length of time but had not produced desired results. (DermNZ, 2023)

(1.5, 2.1, 2.2, 2.3, 2.4)

Plan

Treatment plan and consent to commence was discussed and agreed with Alice (and parent).

Short term:
GP was contacted to discuss co-management. GP agreed to commence treatment as per the plan and repeat full blood count and liver function tests at 4-6 weeks as per shared care agreement with GP. Agree to initial oral anti-fungal treatment for 6 weeks and review with GP at 6 weeks.

Long term:
Pending results of the follow up blood test, GP to provide prescription for a further 6 weeks dependent on efficacy and tolerability. Typical treatment course for toenails is 12 weeks (AMH).

(2.3, 2.4, 2.5, 2.6,)

Medications prescribed (including scheduling)

Terbinafine 250mg orally, once daily for 6 weeks (42 tablets) Poisons Schedule: S4

(3.10)

Scheduled medicines assessment and evaluation

Indication/purpose for medicine prescribed:

Terbinafine is an oral antifungal medication indicated in the treatment of onychomycosis (fungal infection of the nail) caused by dermatophyte fungi (eMIMS). It is the drug of choice for tinea in the nails of children. (eTG, 2022).

Rationale / evidence-based practice relevant to case:
Terbinafine 250mg once daily until clinical clearance is recommended for moderate and severe onychomycosis and for mild cases, if it is causing pain, reservoir for secondary tinea infection, or cosmetic reasons (eTG, Dermatology, 2022). Moderate onychomycosis is defined as 20 to 60% nail plate involvement. Medicine relevant due to extensive nail plate involvement, topical therapy failure, history of recurrent tinea pedis and desire to improve nail appearance. Systemic treatment is more effective than topical for fungal infections. Terbinafine has a complete cure rate of 44 to 46% (mycological cure plus 100% clear nail) however it is more effective than itraconazole and fluconazole, but its use can be limited by adverse effects (eTG, 2022).

Pharmacodynamics:
"Fungicidal against dermatophytes and some other organisms, fungistatic against *C. albicans*; inhibits fungal ergosterol synthesis by inhibiting squalene epoxidase, leading to membrane disruption and cell death." (AMH)

Pharmacokinetics:
Absorption

- Following oral administration, terbinafine is well absorbed when taken with food
- *Relevance to case; terbinafine can be given without regard to food.*

Distribution

- Terbinafine is the treatment of choice for dermatophyte onychomycosis as it has a high affinity for keratinous tissues.
- *Relevance to case; is effective for nail treatment*

Excretion

- Excreted predominantly in urine. In renal impairment (CrCl < 50ml/min), or pre-existing liver disease, clearance of terbinafine decreased by 50% (MIMS).
- *Relevance to case – Renal and liver precautions based on Alice's medical history.*

Dosing/administration:

- Recommended dosage schedule in Therapeutic Guidelines is terbinafine 250 mg orally, once daily until clinical clearance
- Duration typically 12 weeks for toenails. For most patients the duration for successful treatment is between six weeks and three months. Duration is impacted by size of the nail and nail growth speed.
- Dosage adjustment is not required for Alice due to her BMI with normal renal function. (MIMS). The adult dose is usually appropriate once a child is over 12 years of age. Once daily dosing is suitable for patient's schedule, they are

adherent to current medications and do not have trouble swallowing solid oral formulations.

Adverse effects:

- Common (>1%) nausea, vomiting, diarrhoea, abdominal pain, rash, itch, urticaria, transient elevation of liver enzymes, arthralgia, myalgia, headache
- Infrequent (0.1–1%) taste disturbance (usually reversible)
- Rare (<0.1%) hepatitis, hepatic failure, neutropenia, agranulocytosis, thrombocytopenia, pancytopenia, anaemia, Stevens-Johnson syndrome, toxic epidermal necrolysis, psoriasiform lesions, worsening of psoriasis, photosensitivity, cutaneous and systemic lupus erythematosus, alopecia, anaphylactoid reactions, dizziness, depression, paraesthesia
- *Relevance to case: baseline levels and monitoring required for hepatic function, monitoring required for blood dyscrasias, advise Alice to monitor for signs of hepatic dysfunction.*

Possible drug interactions:

- Alice's current medications were reviewed using the eMIMS interaction checker and no interactions with the prescribed medication were found.
- Terbinafine is a strong inhibitor of CYP2D6, potentially increasing the concentrations and adverse effects of drugs metabolised by this enzyme.

Precautions and contraindications (AMH, MIMs, eTG):

- Psoriasis, lupus erythematosus—may be exacerbated or precipitated by terbinafine. Relevance to case- Nil history or family history.
- Renal; Reduce dose if CrCl <50 mL/minute. Relevance to case- nil history or family history, no risk factors for impairment.
- Hepatic; Contraindicated in severe, chronic, or active hepatic disease. Relevance to case- nil, baseline liver function results show no abnormality.
- Pregnancy; Limited data suggest that terbinafine is unlikely to increase the risk of congenital malformations; contact one of the pregnancy Drug Information Centres for advice about a specific patient. Relevance to case- nil, patient reports they are not pregnant or sexually active
- Breastfeeding; Found in low concentrations in breast milk; appears safe. Relevance to case- nil, patient is not breastfeeding

Overall appropriateness for the patient:

Baseline pathology results for Alice does not indicate any hepatic impairment that would contraindicate the use of oral terbinafine. Consideration of evidence-based guidelines for prescribing and patient factors, this treatment is appropriate

Consideration of ethical and legal obligations:

A podiatrist providing a prescription for oral terbinafine for the treatment of onychomycosis of the toenails would be considered suitable in context of podiatry

practice only when co management takes place with a medical practitioner to assist in monitoring systemic effects of this drug.

An assessment of the individual patient including microscopy and culture was conducted prior to commencing treatment.
Patient counselling and education would need to occur to include the risks, monitoring and follow up.

Cost implications:
A prescription written by an Endorsed podiatrist is not eligible for PBS subsidy. The approximate price would be $20 for 42 tablets. The patient would also have costs involved in follow up pathology (LFTs/ blood count) and a consultation with a medical practitioner to review the results. As the patient is 17, parental consent regarding costs is encouraged.

(1.9, 1.13, 2.11, 2.12)

Education

- This medication is an antifungal medicine to treat infected toenails.
- Take one tablet daily at the same time each day. The initial course will be for 6 weeks.
- There is a mycological cure rate of 60% and complete cure rate of 44 to 46% for terbinafine. The nail needs to grow out before it looks completely healthy. For a young healthy patient, this would be approximately 9 months (eTG, 2022).
- The medication course should be completed unless advised otherwise by the podiatrist or GP.
- Between 4 and 6 weeks, a repeat blood test is required, and your GP will decide if a further 6 weeks of treatment is required at your appointment in 6 weeks.
- Common side effects may be experienced such as nausea, diarrhoea. If significant or prolonged diarrhoea and nausea is experienced, seek medical attention.
- Some people may experience an allergy to medications. If rash, coughing, wheezing, or difficulty breathing is experienced, seek urgent medical attention.
- Contact the GP if experiencing unusual tiredness, nausea, or loss of appetite; notice dark urine, pale faeces or yellowing of the whites of eyes or skin; fever, mouth ulcers, sore throat, or unusual bruising (AMH)
- Avoid pregnancy during the course of treatment and cease treatment if may be pregnant.
- Store below 25 degrees, keep out of reach of children
  The prescription for scheduled medicines if written by an endorsed podiatrist does not attract a benefit under the PBS. The approximate cost is around $20.00.
- Advised on foot hygiene being important in the prevention of fungal infections including discarding or treating infected footwear and socks.
- Recommended footwear in communal/public areas such as at swimming pool, drying feet and between toes meticulously, avoiding occlusive footwear and nail polish.

- Advised thorough cleaning of bathroom and shower floors and treatment for any untreated family members sharing these facilities.

(1.3, 2.14, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.9)

Review/monitoring/clinical outcome of medicine (where relevant)

Effectiveness would be indicated if healthy clear nail starts to appear at the proximal (posterior) nail fold. However, full nail plate growth will take 9-12 months and therefore proximal healthy nail results may not always be evident after the 6-week treatment. (eTG)

A small scratch in the nail can be made with a scalpel blade just proximal to the dystrophy after the first course of treatment. If the dystrophy stays distal to the scratch, no further treatment is required *(eTG, 2022).*

If treatment is not successful or the patient does not tolerate terbinafine this patient would need to be referred on to a General Practitioner. Referral will be for further assessment and consideration of alternative oral antifungal therapy not available to endorsed podiatrists/podiatric surgeons.

The patient is to see her GP for LFT's and blood count to be monitored at 4-6 weeks and for prescription of a further 6 weeks treatment if appropriate. Reviewed by podiatrist at 6 weeks for nail care if required.

(1.3, 1.14, 2.8, 2.11, 2.13, 2.14, 3.1,3.2, 3.3, 3.6, 3.7, 3.8)

Reflection of learnings relating to this case

This medicine is available with PBS subsidy only if written as an authority prescription by a medical practitioner for a patient that meet PBS criteria including diagnosis confirmed by positive microscopy. Although podiatrists' prescriptions do not attract PBS subsidy it is recommended practice to ensure positive microscopy and culture results prior to prescribing. In this case, if there was high clinical suspicion, positive microscopy but negative culture results, oral terbinafine may still be considered for this patient since topical treatment had been attempted and there were no known underlying conditions that would contraindicate its use. There would however be a lower tolerance to prescribe this medication in a higher risk immuno-compromised patient *(PBS online, 2023).*

Terbinafine is a strong inhibitor of CYP2D6, potentially increasing the concentrations and adverse effects of drugs metabolised by this enzyme. Its potential to interact may last for months after stopping the treatment as it has a very long half-life. This highlights the importance of a thorough medication history taking as the patient may already be taking a drug metabolised by this enzyme and the risk could outweigh the benefit of the medicine. The medicines known to potentially cause drug interactions with terbinafine are not available on the National Podiatry List of Scheduled Medicines however this again emphasises the importance of good drug history, clinical handover/ good communication with other health providers who may potentially prescribe such drugs to this patient in the future *(MIMS online, 2023).*

References:

Australian Medicines Handbook 2023 (online). Adelaide: Australian Medicines Handbook Pty Ltd; 2023 January. Available from: https://amhonline.amh.net.au/

DermNet NZ Online (2023). Retrieved from http://www.dermnetnz.org

MIMS Online (2023). Retrieved from http://www.mims.com.au

Pbs.gov.au. (2023). *Pharmaceutical Benefits Scheme (PBS) | Home*. [online] Available at: http://www.pbs.gov.au/pbs/home

eTG Complete by Therapeutic Guidelines (2022). Retrieved from https://www.tg.org.au/

Essential prescribing skills/code relevant to this case

Information about the essential prescribing skills and how they map to the NPS prescribing competencies are published on the Board's website. These may also be incorporated into each of the above sections.

This clinical study has demonstrated the following essential prescribing skills:
1.1, 1.3, 1.5, 1.7, 1.9, 1.10, 1.12, 1.13, 1.14
2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8, 2.9, 2.11, 2.12, 2.13, 2.14
3.1, 3.2, 3.3, 3.6, 3.8, 3.9, 3.10
These have been referenced throughout the study.

Attachments (list your attachments below)

Prescription, shared care correspondence with GP.

Signatures

Mentor name: John Smith	Date: 24/01/2023

Signature of mentor: John Smith

Your name: Anna Podiatrist	Date: 24/01/2023

Your signature: Anna Podiatrist

Form submission

The fastest way to submit this form and any supporting documents is online at:
www.ahpra.gov.au/registration/online-upload.

If you wish to submit it via mail, please post this form and required attachments to:

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GPO Box 9958
IN YOUR CAPITAL CITY (refer below)

You may contact Ahpra on 1300 419 495 or you can lodge an enquiry at www.ahpra.gov.au

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Hobart TAS 7001	Melbourne VIC 3001	Perth WA 6001	Sydney NSW 2001

Evidence 5:

Sample prescription relating to clinical study 2

Evidence number: 5

PRESCRIPTION

Anna Podiatrist
Bachelor of Podiatry
Podiatrist endorsed for scheduled medicines
Podiatry Board of Australia **- Registration No: POD12345678**

Practice Address:
Northside Community Podiatry Clinic
I Northside Avenue, Wellville
Phone: (01) 1234 1234

Patient details:

Full name: Miss Axxxx xxxxxx

DOB: 23/01/2006

Address: 11 East Drive, Wellville.

Date: 9/01/2023

℞

Terbinafine
250mg tablets
1 daily for 6 weeks
Supply 42 tablets

Anna Podiatrist
Prescriber's signature

No subsidy available under the PBS for medicines prescribed by a podiatrist or podiatric surgeon with endorsement for scheduled medicines

Patient Receipt **THIS AREA DOES NOT NEED TO BE COMPLETED**

Patient or agents signature_____

Agent address _____

Evidence 6:

Sample of communication with member of patient's healthcare team relating to clinical study 2

Anna Podiatrist (ESM)
Northside Community Podiatry Clinic
1 Northside Avenue, Wellville
(01)1234 1234
E: anna_podiatrist@northside.com.au

Dr John Smith
99 South St
Wellville

Today's date

Dear Dr Smith
Re: Miss Alice xxxxx
DOB: 23/01/2006 11 East Drive, Wellville.
Ph: 0199 111 999

Medical History:

- Asthma
- Ureteric reimplantation
- Persistent onychomycosis.

Current medications:

- Salbutamol inhaler 100 micrograms 1-2 actuation per inhalation prn (infrequent use)
- Fluticasone propionate 50 micrograms 1-2 puffs BD
- Amorolfine liquid, 5% for 10 months.

Presenting complaint:
Alice presented today complaining of a 14-month history of onychomycosis of both feet at the first and second toenails. This has been non-responsive to topical preparations. As you are aware in our communication, microscopy and culture results confirmed dermatophyte T. rubrum.

Investigations:
Recent baseline full blood count and liver function tests (LFTs), as per your records, indicate no abnormality.

Treatment Plan and Shared Care:
With no identified contraindications, initial oral anti-fungal treatment was prescribed: Terbinafine 250mg orally, once daily for 6 weeks.

As per our phone conversation today, Alice will collect a pathology request form from your practice to complete bloods to monitor liver function and blood count in approximately 6 weeks. She has also been advised to arrange a consult with you to review the results and assess the effectiveness of this treatment.

Please do not hesitate to contact this clinic should you wish to discuss this case further.
Please advise if there is any update to this patient's medical history.

Regards,

Anna Podiatrist

Anna Podiatrist

Log of activities within portfolio

Podiatry Board Ahpra

Podiatry Board of Australia

Log of activities: Endorsement for scheduled medicines – Pathway B

What is this document?

As required by the Podiatry Board of Australia's *Registration standard: Endorsement for scheduled medicines* (ESM registration standard) and *Guidelines: Endorsement for scheduled medicines* (ESM guidelines), during your period of supervised practice under Pathway B you will progressively develop a portfolio of evidence that will demonstrate to the Board that you have met the Board's supervised practice requirements and you have the required prescribing competencies to have your registration endorsed for scheduled medicines.

Your portfolio of evidence must include a Reflective journal. The purpose of a reflective journal is to enable you to demonstrate that you have undertaken a minimum of 150 hours of supervised practice within a 12-month period and you have reflected on your prescribing practice.

Your reflective journal must include a log of the activities you have undertaken during your supervised practice.

The log of activities will be developed progressively during your period of supervised practice and should be taken to each activity and signed by the relevant practitioner involved in the activity with you on the day. For example the attending prescribing clinician for each observational clinical session must sign the entry for each session.

How do I complete this document?

The Board has developed this example of a Log of activities that you may wish to use.

Each entry in the log must include at a minimum:

- the date and time for the activity
- the duration of the activity in hours
- a brief description of the activity
- the name, profession and signature of the practitioner involved in the activity with you

Log of activities undertaken during the period of supervised practice under Pathway B

Name: **Anna Podiatrist** **Signature:** *Anna Podiatrist* **Period of supervised practice:** **08/09/2022** to **03/04/2023**

Date	Time	Description of activity	Summary of activity	Duration	Name, profession and signature of practitioner for relevant activity
	Time of day activity undertaken	e.g. observational clinical session	e.g. Location and type of activity.	In hours	e.g. - attending clinician for observational clinical session - Mentor if mentor involved in activity - practitioner if self directed
08/12/2022	09.00	Observational clinical session	High risk foot clinic – interdisciplinary – 5 clinical consultations observed	3 hours	Jxxx Fxxxx, Podiatrist *Axxx Fxxxx*
12/12/2022	17:00	Zoom meeting with mentor	Discussion with mentor regarding observation at high risk foot clinic and needing to seek further education - suggested NPS module on antimicrobial prescribing	1 hour	John Smith – mentor *John Smith*
17/12/2022	10:00	Reflection on 8/12/2022 clinical session and discussion with mentor and develop clinical study	Develop clinical for high risk foot clinic session and evidence assessment	4 hours	Anna Podiatrist - *Anna Podiatrist*
28/12/2023	13:00	Review journal article *Medication adherence among patients with gout: A systematic review and meta-analysis*	Analyse and reflect on article. Develop reflective piece for portfolio.	3 hours	Anna Podiatrist - *Anna Podiatrist*
03/02/2023	17.00	Face to face meeting with mentor	Discussion with mentor about high risk clinical study, learnings from journal article (gout). Reviewed and discussed reflective piece about journal article and clinical study (high risk)	1 hour	John Smith – mentor *John Smith*
06/04/2023	14:00	NPS - Introduction to antimicrobial prescribing	Completed NPS MedicineWise online learning module about antimicrobial prescribing	1 hour	Anna Podiatrist - *Anna Podiatrist*

Evidence 7:

Reflective journal: Theoretical case scenario

CSTE-70

Podiatry Board Ahpra

Clinical study template

Profession: **Podiatry**

Clinical study details

Clinical study number: 7	Date of observation: Not applicable – Theoretical case scenario
Your name: Anna Podiatrist	
Attending prescribing clinician's name: Not applicable	

Clinical setting description

☐Inpatient – ***Provide hospital/ward/encounter type below***

☐Outpatient – ***Provide hospital/name of clinic below***

☐Community health – ***Provide name below***

☒Primary health or private practice

Subsequent/return visit to A Foot Service

☐Other – ***Please describe below***

Presentation type: Podiatry related

Case category *(check all boxes that apply)*

☐ High risk

☐ Complex

☐ Describes clinical outcome of medicine

☐ Describes polypharmacy

☒ Includes sample of communication with other member of healthcare team

Patient details

Jim is an 18-year-old male

Measurements:
Weight: 60kg. Height: 174cm. BMI: 20

Social History:
Lives at home, currently undertaking a plumbing apprenticeship
Smoking status: non smoker
Alcohol or illicit drug use: Nil disclosed

Medical/Surgical history:
Nil disclosed

Current medications:
Nil disclosed

Relevant ceased medications:
Nil disclosed

Non-prescription medicines:
Nil disclosed

Allergies:
no known allergies or adverse drug reactions

Previous history of medical procedures involving local or general anaesthesia:
Nil disclosed

Presenting complaint:
Ingrown toenail Left 1st lateral edge. (Theoretical scenario of use of Adrenaline (epinephrine) for anaphylaxis).

Essential prescribing skills (1.1, 1.7, 2.1)

Subjective

Jim has a painful ingrown toenail causing discomfort in footwear over the past week.
He states his toenails break easily and he doesn't trim them regularly. Leading up to this presentation, he pulled on the broken nail, which became sore over subsequent days. He applied Betadine antiseptic liquid, but it has not helped.

Objective

Dermatological assessment:
Hypergranulation tissue L/1st toe lateral sulcus, obscuring visibility of the nail edge. Inflammation evident, with swelling, erythema, and increased pain (worse with direct pressure). No signs of purulence, no malodour. No clinical signs of infection.

DDx: Paronychia, Insect bite, traumatic injury – these have all been ruled out as examination findings are consistent with an ingrown toenail.

Neurovascular Assessment:
No risks identified.

As Jim was very keen to resolve this problem, without taking time off work, it was advised that local anaesthetic would be necessary to numb the area prior to any treatment, due to the level of discomfort.
Jim denied ever receiving a local anaesthetic injection previously.
Verbal and written informed consent obtained prior to removing the nail spike.

Anaesthesia: The maximum dosage of lidocaine without adrenaline is 3 mg/kg up to 200mg.
Based on the use of 2% Lidocaine, a safe maximum dosage was calculated as 9ml.

4ml was drawn up in a single syringe, and the toe was swabbed with an alcohol wipe prior to injection. 3.5ml was injected into the medial and lateral left hallux as a ring block.

Following the injection, Jim's face and neck developed a flushed appearance, he appeared to be having difficulty breathing. Jim also reported feeling dizzy.

Diagnostic Assessment

Diagnosis: anaphylaxis (suspected due to either latex gloves or lidocaine).

Differential Diagnosis: asthma exacerbation (although Jim has no history), panic attack/ procedural related anxiety.

Plan

Short term (immediate, without delay):

1. Call for assistance- advised office staff to call triple zero for an ambulance advising suspected anaphylactic reaction in 18-year-old male.
2. EpiPen autoinjector expiry date checked.
3. Intramuscular (IM) adrenaline (epinephrine) given into patient mid-lateral thigh (using EpiPen® auto-injector – yellow/Adult) without delay.
4. Used EpiPen® Auto-Injector disposed of into a secure sharps container.
5. Jim was laid flat on the treatment chair and placed in the recovery position. Practitioner monitored Jim's airways and response to adrenaline.

Paramedics arrived within 10 minutes.

Clinical handover (in ISBAR* format) provided to paramedics including drugs administered at the clinic.

*ISBAR - Identify, Situation, Background, Assessment and Recommendation.

Subsequent actions:

Phone call and written correspondence sent to GP documenting details from podiatry consultation.

Adverse event report to be sent to ADRAC.

(2.5, 4.7)

Medications prescribed (including scheduling)

Adrenaline (epinephrine) inj, 300 mcg, 0.3 mL (EpiPen® Auto-Injector Solution for injection)

Poisons schedule: S3

(3.9, 3.10)

Scheduled medicines assessment and evaluation

Indication/purpose for medicine prescribed:

There was rapid development of life-threatening respiratory complication and patient assessment was consistent with anaphylactic reaction.

Rationale/evidence-based practice:

Adrenaline rapidly reverses the effects of anaphylaxis and adrenaline injector devices are considered to be first line emergency first aid treatment for anaphylaxis. (ASCIA)

Pharmacodynamics:

Adrenaline is a sympathomimetic drug, acting on both alpha and beta receptors. Through its action on alpha adrenergic receptors, adrenaline lessens the vasodilatation and increased vascular permeability that occurs during anaphylaxis, which can lead to a loss of intravascular fluid volume and hypotension. Through its action on beta-adrenergic receptors, adrenaline causes bronchial smooth muscle relaxation that helps alleviate bronchospasm, wheezing and dyspnoea that may occur during anaphylaxis. (MIMS)

Pharmacokinetics (MIMS):

Absorption

The onset of action is rapid and of short duration. After intravenous infusion the half-life is approximately 5 to 10 minutes.(MIMS)

Distribution

Adrenaline is rapidly distributed to the heart, spleen, several glandular tissues, and adrenergic nerves. It is approximately 50% bound to plasma proteins (MIMS).

Metabolism

Adrenaline is rapidly metabolised in the liver and tissues (MIMS).

Excretion

Up to 90% of the intravenous dose is excreted as metabolites in the urine. It crosses the placenta and is excreted in breast milk (MIMS).

Dosing/administration:

>50 kg, IM 300 micrograms or 500 micrograms.

20–50 kg, IM 300 micrograms.

7.5–20 kg, IM 150 micrograms.

Administration : give injection into the outer mid-thigh (do not inject into buttocks).

IM injection into the mid-anterolateral thigh is safe and effective. It should be used at the first suspicion of an anaphylactic reaction for prevention of serious complication and death.

All auto-injectors also contain sodium chloride, sodium metabisulfite and hydrochloric acid. Adrenaline (epinephrine) solutions are clear and colourless. Prior to use, a quick check of the injector pen is essential and to discard if the solution is pink or brown.

Adverse Effects:

Common symptomatic adverse events include anxiety, apprehensiveness, restlessness, tachycardia, respiratory difficulty, tremor, weakness, dizziness, headache, dyspnoea, cold extremities, sweating, pallor, nausea, vomiting, sleeplessness, hallucinations, palpitations, fear and flushing or redness of face and skin. Psychomotor agitation, disorientation, impaired memory, and psychosis may occur. More serious (but rare) adverse effects can occur such as arrhythmia, sever hypertension, cerebral haemorrhage, and pulmonary oedema. Angina may occur in patients with coronary artery disease.(MIMS)

The potential for adrenaline to produce these types of adverse effects does not contraindicate its use in an acute life threatening allergic reaction. (MIMS)

Contraindications and precautions (AMH, MIMS, eTG):

Adrenaline is often life-saving and there are no absolute contraindications to adrenaline in anaphylactic reactions.

Overall appropriateness for the patient:

Adrenaline is appropriate for the patient as adrenaline injection is first line treatment for anaphylaxis or suspected-anaphylaxis. Jim is experiencing symptoms of anaphylaxis and therefore prompt emergency treatment is required.

Consideration of ethical and legal obligations:

Podiatrists endorsed for scheduled medicines can prescribe adrenaline (epinephrine) for anaphylaxis, however as per the schedule, the intravenous route is restricted to podiatric surgeons. In this scenario an intramuscular injection is appropriate. Adrenaline (epinephrine) is available in preloaded autoinjectors and ampoules. A preloaded autoinjector is preferred since an ampoule requires dose calculation and has to be drawn up into a syringe (eTG).

Cost implications:

In this scenario, the cost of the adrenaline would be incorporated into the treatment fee, to be paid at a later time when the patient was fully recovered. Endorsed podiatrists are unable to prescribe benefits under the PBS and therefore the patient would be responsible for the full private cost of the EpiPen, which is approximately $80.00 (Chemist Warehouse Mar 2023). Patients at risk of anaphylaxis can access PBS subsidised adrenaline auto-injectors for treatment of acute allergic reaction with anaphylaxis where the patient has been assessed to be at significant risk of anaphylaxis by an appropriate medical specialist or has been discharged from a hospital or emergency department after treatment with adrenaline (epinephrine) for acute allergic reaction with anaphylaxis. With a PBS prescription the general patient contribution is $30.00, and the concessional patient contribution is $7.30 (Mar 2023).

Outline of any collaboration, communication, shared care protocols:

For Jim, with no previous history of anaphylaxis it would be important for health professionals managing this patient to document food, medicine, sting/bite exposure in the 2–4 hours before anaphylaxis, and to provide correspondence to his general practitioner.

Review parameters, indicators of effectiveness, ineffectiveness, and harm:

Indicators of effectiveness include patient stabilisation; indicators of ineffectiveness would be evidenced by continued deterioration of patient status and airway compromise. It should be noted that a second dose of adrenaline should be administered after 5 minutes if required. For this reason, clinics should hold sufficient quantity of adrenaline for two doses.

Education

Treatment administered:

The procedure involving the removal of the nail spicule was ceased as soon as the patient was identified as suffering symptoms of anaphylaxis.

The patient was verbally advised that they were believed to be suffering a severe allergic reaction, and emergency medical services had been called. They were advised of each step being taken while they were being treated, including the process of injection with the adrenaline auto-injector. The patient was reassured that emergency assistance would soon arrive to assess them and transport them to hospital.

Medicine administered:

When administering the adrenaline, the patient was advised of possible, but expected, adverse effects of the adrenaline they might notice, such as the feeling of a racing heart, nervousness or restlessness, dizziness, and tremor.

Patient understanding:

Due to the emergency nature of the situation and the patient's distress, it was not clear how much they understood, however attempts were made to provide reassurance and keeping them advised of treatment.

Further information for Jim:

Following review with his appropriate health professional, Jim should always keep two adrenaline autoinjectors close. Jim, family, friends, colleagues should be taught how to recognise anaphylaxis and when and how to give adrenaline. Jim should develop an action plan for anaphylaxis with his doctor.

Jim should also be advised to call an ambulance as soon as possible after using adrenaline because further doses may be required.

EpiPen® should be stored between 15°C and 25°C, but not refrigerated. Store in the carrier tube provided, as adrenaline is light sensitive. Note the use by date for adrenaline and arrange a new supply in advance. Also note there are additional suppliers of autoinjector pens and that their administration may be slightly different. All health professionals should be familiar with the technical use of the autoinjector they have on site.

Note the use by date for your adrenaline and arrange a new supply in advance. Replace the auto-injector if the solution is discoloured or contains a precipitate.

Jim should advise all health professionals of his allergy/ adverse reactions history and to consider wearing a Medic Alert bracelet/product.

Review/monitoring/clinical outcome of medicine (where relevant)

- Observe the patient for at least 4 hours after the last dose of adrenaline. This will occur in the hospital setting following transport by paramedics.
- Ensure allergy/ adverse reactions history is taken for all patients and all clinicians are aware of EpiPen® storage location and correct procedures for use.
- Follow up with Jim to determine health status and encourage referral to an allergy clinic to determine allergen source

Reflection of learnings relating to this case

Adrenaline (Epinephrine) is available on the National Podiatry Scheduled Medicines List for management of anaphylaxis only. Intravenous (IV) route is restricted to podiatric surgeons only. All podiatrists have annual training in the administration of anaphylaxis medicines as part of their conditions of registration.

IM is the preferred route for anaphylaxis.

Injecting into the same IM or subcutaneous site may cause ischaemia and necrosis. If Jim required a second IM dose of adrenaline it would be important to use the opposite thigh to avoid this.

For children 10–20 kg (aged ~1–5 years) a 0.15 mg device, e.g., EpiPen Jr (Green), should be used.

Essential prescribing skills/code relevant to this case

Information about the essential prescribing skills and how they map to the NPS prescribing competencies are published on the Board's website. These may also be incorporated into each of the above sections.

1.1, 1.7, 2.1, 2.5, 3.9, 3.10, 4.7.

Referenced throughout the document in brackets and bold on right hand side of column e.g. (1.1).

Attachments (list your attachments below)

Australian Society of Clinical Immunology and Allergy (ASCIA) anaphylaxis e-training for health professionals - certificate of completion.

Signatures

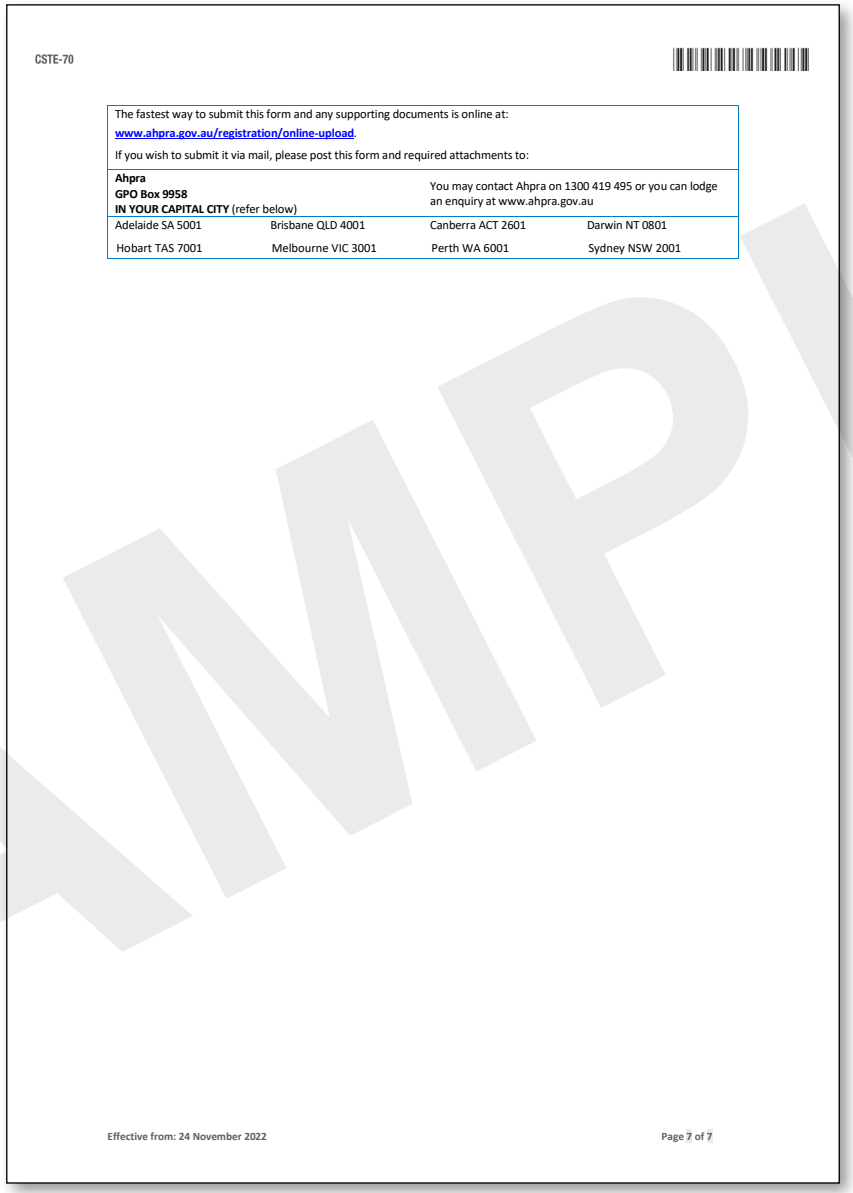
Mentor name: John Smith	Date: 2/01/2023

Signature of mentor:
John Smith

Your name: Anna Podiatrist	Date: 2/01/2023

Your signature:
Anna Podiatrist

Form submission



CSTE-70

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Effective from: 24 November 2022

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Evidence 8:

Reflective journal: Review of relevant journal article

Practitioner name: **Anna Podiatrist**

Evidence number: **8**

Type of evidence: Reflective piece for reflective journal

Review of relevant journal article

Journal Article title:
Scheepers, L.E.J.M, van Onna, M, Stehouwer, C.D.A, Singh, J.A, Arts, C.W, Boonen, A, (2018) Medication adherence among patients with gout: A systematic review and meta-analysis, **Seminars in Arthritis and Rheumatism**, 47, 689–702

Article type: *Systematic Review*

Journal: *Peer reviewed*
Study description and why it is being reviewed.

This published systematic review was designed to assess and describe the factors relating to medication adherence in people who have gout and had been prescribed medication to lower urate levels. This review also described the gout related clinical outcomes including; poor medication adherence or early medication cessation. I chose to review this article as I want to understand how to encourage patients to continue to take their prescribed medications and to understand what factors may be involved in patient's choosing to not take their prescribed medications.

There were 24 articles included in the review following a systematic search of the literature. The authors reported a robust method of searching and this was reviewed against the Preferred Reporting Items for Systematic Reviews and Meta- Analyses (PRISMA) website. Of these studies, 16 of the studies used prescribing trend data. There were 11 studies undertaken in the USA, one in Israel, one in New Zealand and three in Europe (UK, Italy, and Ireland). All of the 16 studies reported a systematic way of diagnosing gout., and this ensured the results were relevant to the research question. There were two studies that used pill counting methods as a way to describe adherence, and six studies that used patient reported outcome measures. These outcome measures included patient described symptoms, doctor observations of symptom relief, or a standardised measure. These six studies were based in either, New Zealand, Europe and the USA. The different settings may be likened to the Australian health context when based in New Zealand, as well as some of studies based in European countries.

Drugs of interest within the article

Allopurinol was the main drug prescribed for gout in all but two of the studies. This drug is not on the list for endorsed podiatry prescribers. Only four studies included the prescription of colchicine, which is on the podiatry list of scheduled medicines and two included the prescription of nonsteroidal anti-inflammatory drugs (NSAIDs). While the included studies did not detail which NSAIDs were prescribed, the podiatry list of medicines lists a number of scheduled NSAIDs. Recommendations for medication use in gout during an acute attack also includes NSAIDS: Commonly used NSAIDs during an acute gout attack includes ibuprofen (on the list) or indomethacin (on the list). The use of corticosteroids was not mentioned within this article.

Findings

Seven studies reported adherence to taking the medication as prescribed, between 54% to 88%. The remaining five studies were reported in a way that it was hard to extract adherence rates. Similarly, not persisting with taking the medication was reported in six of the studies. There were 54% to 87% of participants who did not continue taking the medication in the long term. Co-morbidities appeared to play a substantial role increasing or improving adherence to taking medication, these co-morbidities included conditions such as diabetes and hypertension, but not conditions like rheumatoid arthritis or history of cancer. Different ethnicities also had a high rate of poor adherence, although the article did not discuss the reasons. There was inconclusive evidence that the following factors improved or decreased adherence: marital and smoking status, body mass index, socio-economic status, and gender. Unsurprisingly, low adherence to taking the medication resulted in more flare ups.

What this means for podiatry prescribing

All podiatry prescribing should be in shared care arrangements with medical practitioners. This is particularly of importance with prescription of colchicine. Podiatrists should inform the medical practitioner at the time of prescription and establish the process for confirmation of diagnosis and ongoing monitoring (with appropriate blood tests).

Understanding medication adherence to prescribing is also important. Finding that people who have diabetes or high blood pressure are more likely to continue their gout medication is positive for podiatrists. It may be that these people are more likely to engage with their health care provider or simply that they are more in the habit of taking a tablet regularly, so an additional tablet is easy to add into their routine. People who have these co-morbidities often also regularly attend podiatry services. Finding different ethnicities (Maori or African American) had poor adherence has limited applicability to the Australian health setting. Instead podiatrists should consider that different cultures may have different values or understanding of disease processes. It is not appropriate to discuss or profile compliance in patients who have different ethnicities, podiatrists should be aware that these differences may exist and be complex to understand. All communication on the importance of continuing with ongoing scripts should be framed in person centred care, using language and advice that considers the person and their individual circumstances. Ongoing consultations can also be an opportunity to reinforce medication compliance, particularly in long term medication use.

What this means for me
Following this review, I will discuss with my mentor:

1. The importance of accurate gout diagnosis and how gout diagnosis is confirmed prior to any prescribing.
2. What blood tests are undertaken by the medical practitioner and why is the podiatry correspondence important for establishing the monitoring?
3. Discuss and role play using patient-centred language to explain the importance of adherence to prescribed medication regimes and how a prescriber can influence this.
4. Shared care arrangements and effective interdisciplinary correspondence.

Essential prescribing skills relevant to this reflective piece
This review of literature has demonstrated the following essential prescribing skills:
1.3, 1.4, 1.5, 1.6, 1.10, 1.12, 1.13, 2.2, 2.5, 2.6, 2.10, 2.11, 2.14, 3.4, 3.6, 4.4

Mentor name	John Smith		
Mentor signature	John Smith	**Date**	10 January 2023
Practitioner name	Anna Podiatrist		
Practitioner signature	Anna Podiatrist	**Date**	10 January 2023

Evidence 9:

Certificate of completion – NPA module

Statement of Completion

This is to verify that

Anna Podiatrist

has completed the online activity

Introduction to antimicrobial prescribing 2023

6 April 2023

It is recommended that 1 CPD hour be recorded for this module for the purposes of self-directed CPD.

uGLTJZC4qd

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NPS MEDICINEWISE

Evidence 10:

Reflective journal – Clinical narrative highlighting a situation where things did not go as well as planned

Practitioner name: **Anna Podiatrist**

Evidence number: **10**

Type of evidence – Reflective piece for reflective journal

A clinical narrative that highlights a situation where things did not go as well as planned and was particularly complex or demanding.

Introduction
This case examines the use of ultrasound-guided corticosteroid injection I observed for the management of an acutely symptomatic accessory navicular. The case highlights NPS competencies involving appropriate clinical indications for the use of scheduled medicines, the need for careful patient follow-up and management of a person with additional needs.

Case Presentation
A 27-year-old female presented to our private practice. Her primary complaint was pain and discomfort in the medial arch of her right foot. Following examination, a symptomatic accessory navicular was suspected, and the patient referred for imaging. This was confirmed through radiological and MRI investigation which indicated substantial bone oedema either side of a fibrocartilage attachment to the accessory navicular.

Of significance to this case was this patient has a diagnosed mild intellectual disability. She requires support from her family to manage her health care needs. This included her co-diagnoses of Bipolar II Disorder and Autism Spectrum Disorder (level 1). She has been prescribed Seroquel XR *(quetiapine)* 200 mg tablet daily for the management of her bipolar II disorder. At time of presentation for her foot pain, her medical practitioner had prescribed Brufen *(Ibuprofen)* 400 mg as needed and Panadol Osteo MR (*paracetamol)* 665mg two tablets three times a day. Her parents had also encouraged her to use complementary medicines which included turmeric and arnica drops/ointment (natural remedy considered to soothe muscle aches, reduce inflammation). She had also been fitted with a CAM inflatable boot.

Allergies and adverse drug reactions included an adverse drug reaction to Maxolon *(Metoclopramide)*. This patient reported this medication makes her feel extremely agitated. This is a known side effect of the drug. Maxolon is also known to cause dizziness and drowsiness and it is possible that these effects may indirectly contribute to insecurity of movement, and precipitate agitation[1].

Treatment
There is some evidence supporting the use of corticosteroid injection for the management of a symptomatic accessory navicular prior to considering surgical intervention, particularly in patients where MRI findings indicate associated bone oedema [2]. Concurrent use of NSAIDs and corticosteroids may increase the incidence and/or severity of gastro-intestinal irritation, or ulceration, so ibuprofen was ceased prior to the endorsed podiatrist administering the corticosteroid injection.

This injection was performed under ultrasound guidance and 1 mL betamethasone acetate 3 mg (in suspension) and betamethasone sodium phosphate 3.9 mg (in solution) *(celestone chonodose)* combined with 2 mL 0.5% bupivacaine plain was administered in keeping with eTG recommendations and established guidelines. Recommended patient to remain immobilised in CAM boot until the next appointment and we would revise the advice.

The patient was reviewed 72 hours after the corticosteroid injection as a consequence of developing insomnia and a neuropraxia. The endorsed podiatry prescriber communicated with the patient's general medical practitioner which led to the patient being prescribed Lyrica (pregabalin) to effectively manage the neuropathic pain. It became evident that the neuropraxia was more associated with the wearing of the CAM boot.

Reflection

Upon reflection, this case demonstrated a number of important points. Firstly, the benefits in the use of corticosteroids, while supported in the literature, were only marginal and another therapeutic intervention may have been more appropriate. A second important learning issue extended to potential adverse drug reactions associated with betamethasone and patients with mental health conditions. Both the TGA and MIMS online identified that in the presence of mental health conditions, administration of corticosteroid can be associated with 'euphoria, mood swings, severe depression to frank psychotic manifestations, personality changes and insomnia.

One unexpected complication that was relating to this prescribing case was the development of a nonpharmacological related 'neurapraxia' impacting sleep and associated with wearing a fitted CAM boot after the injection. Given this scenario, it was difficult to disaggregate an adverse drug reaction from a boot fitting issue, particularly in a patient who has an intellectual disability and a history of diagnosed mental health conditions.

Things that were not taken into consideration included needing to use alternative databases to search for potential drug interactions between natural/complimentary/alternative and prescribed medicines. Since doing so, I also found the natural medicines, (formerly natural standards and natural medicines comprehensive database), identified no interaction between betamethasone and arnica montana, however a "be watchful with this combination" interaction was recommended between betamethasone and turmeric. No further details were provided.

Importantly this case study highlights the relevance of *Competency Area 1; Understand the patient* and *Competency Area 4: Monitor and review prescribed therapy*, and in particular Essential prescribing skill 4.4 – 'Where required, work with other health professionals to interpret results of monitoring and to decide on possible treatment options based on monitoring'.[3]

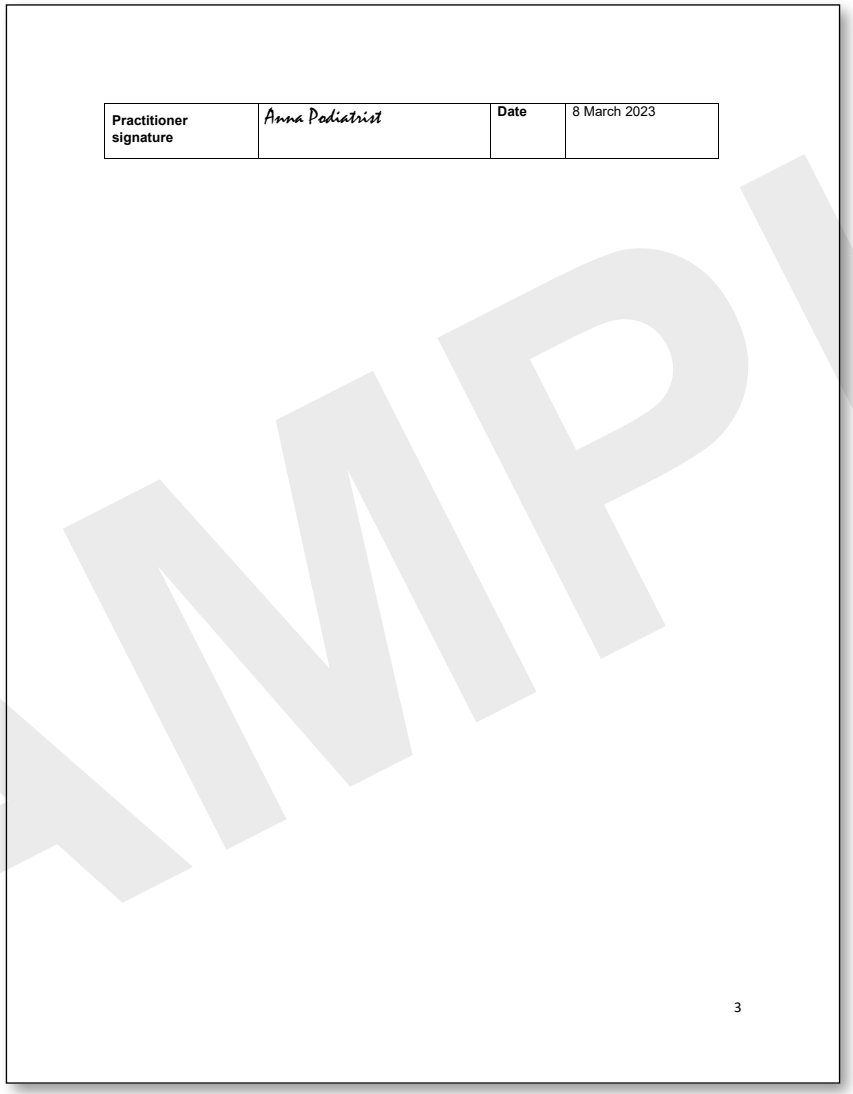
NPS protocols were followed, and immediately involved the patient's general medical practitioner when signs of treatment appeared to interfere with her sleep patterns and general well-being.

Essential prescribing skills: 1.5, 1.7, 1.8, 1.11, 1.12, 1.13, 1.14, 2.3, 2.4, 2.6, 2.8, 2.10, 2.14, 3.3, 3.6, 3.7, 4.1,4.2, 4.3, 4.4, 4.7

References

1. NPS. APO-Metoclopramide Tablets. 2021; https://www.nps.org.au/medical-info/medicine-finder/apo-metoclopramide-tablets. Accessed 2023.
2. Lucas PE, Hurwitz SR, Kaplan PA, Dussault RG, Maurer EJ. Fluoroscopically guided injections into the foot and ankle: localization of the source of pain as a guide to treatment--prospective study. *Radiology*. 1997;204(2):411-415.
3. The ASPRINH (Assessment of Prescribing in Health) Project, a national multi-professional project, which condensed the 73 performance criteria contained in the NPS MedicineWise *Competencies to Prescribe Scheduled Medicines*, also known as the Prescribing Competencies Framework (PCF) to a set of essential prescribing skills, arranged under four competency areas and referenced to the PCF.

Mentor name	John Smith		
Mentor signature	John Smith	**Date**	8 March 2023
Practitioner name	Anna Podiatrist		



Practitioner signature	*Anna Podiatrist*	**Date**	8 March 2023

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